

## Required Shop Drawings and Inspections for Certificate of Occupancy

### Required Shop Drawings – Fire Alarm / Sprinkler

Division of Facility Management (DFM) acts on behalf of Kansas State Fire Marshal Office (KSFMO) on acceptance of fire alarm and sprinkler shop drawings. Fire alarm and sprinkler shop drawings are not submitted to KSFMO. Submittal procedure is as follows:

1. Shop drawings are to be submitted to Project Architect/Engineer. The Project Architect/Engineer will forward one copy to DFM when they have approved a complete submittal.
2. Complete submittal is outlined in Chapter 7 of Building Design Construction Manual (BDCM) reference DFM website at <http://www.da.ks.gov/fp/manual.htm>. DFM will not accept or review partial submittals, only complete submittals will be reviewed.
3. DFM will issue project acceptance to Project Architect/Engineer. Project Architect/Engineer will forward acceptance to Contractor. Contractor is responsible to inform sub-contractor.
4. Installation of fire alarm and sprinkler systems is not to begin until DFM Project Acceptance Record FPDC Form 125 has been issued.
5. The accepted shop drawings are to remain on site and be available to DFM inspectors. Inspections cannot be scheduled if Project Acceptance for fire alarm or sprinkler has not been issued by DFM.

### Required Code Inspections - The following outlines the responsibility of the contractor:

1. It is the responsibility of the Contractor to coordinate with the DFM inspectors to schedule required code inspections. The Agency and the Project Architect/Engineer are also to be contacted for all scheduled required code inspections. The Project architect/engineer has primary responsibility for inspections to determine compliance with the Contract Documents.
2. The required code inspections shall be coordinated with DFM inspector via individual cell telephones. All code inspection requests must be referenced by DFM Project umber (A-000000). (see page 2 for telephone number) (Please note: The DFM inspector, at his discretion, may defer an inspection. The DFM inspector will inform the contractor and agency representative who will be performing the inspection.)
3. Telephone contact is to be a minimum of 3 work days prior to anticipated inspection. Inspection confirmation may occur via e-mail after telephone coordination. Failure to coordinate a scheduled inspection with a minimum of 3 work days may result in no inspection and subsequent denial of a Certificate of Occupancy.
4. An Inspection Record FPDC Form 135 will be issued by DFM inspectors for each required inspection. This record will be forwarded to the Agency. It will be the responsibility of the Agency to forward to the Project Architect/Engineer and Contractor. The Inspection Record will indicate when the inspection is approved. If a deficiency is noted, it will be the responsibility of the Contractor to coordinate solution of the deficiency with the Project Architect/Engineer and to correct all noted deficiencies as directed by the Project Architect/Engineer. Issuance of the Certificate of Occupancy is dependent on resolution of all deficiencies.
5. Code inspections (if component is included in the project) are required to be performed by DFM prior to covering work. These inspections include but are not limited to:

#### a. Footings and Foundations

In-slab or under-floor reinforcing steel and building service equipment, conduit, piping accessories and other ancillary equipment items are in place before any concrete is placed or floor sheathing installed, including the subfloor.

b. **Underfloor/Underslab**

In-slab or under-floor reinforcing steel and building service equipment, conduit, piping accessories and other ancillary equipment items are in place but before any concrete is placed or floor sheathing installed, including the subfloor.

c. **MEP Underground (not associated with underfloor/underslab)**

Shall be made after trenches or ditches are excavated and bedded, piping installed and before any back fill is put in place.

d. **Framing**

Framing inspections shall be made after the roof deck or sheathing, all framing, fire blocking and bracing are in place and pipes, chimneys and vents to be concealed are complete and the rough electrical, plumbing, heating wire, piped and ducts are approved (see in-wall below).

e. **In-Wall**

In-wall inspections shall be made after all sanitary, storm water distribution piping is roughed in and fuel gas components and duct and mechanical components, and electrical components to be covered are installed and prior to the installation of wall membranes.

f. **Fire-resistive assemblies and fire-resistant penetrations**

Fire-resistive assembly inspections shall be made after gypsum board in fire-resistive assemblies, interior and exterior, are in place, but before any joints and fasteners are taped and finished. Fire resistant penetrations – Protection of joints and penetrations in fire-resistance-rated assemblies shall not be concealed from view until inspected and accepted (can also be done in conjunction with above ceiling inspection).

g. **Above Ceiling**

Shall be made after all sanitary, storm water distribution piping, sprinkler piping, fuel gas components, duct/mechanical components, electrical and fire alarm components to be covered are installed, ceiling grid is installed and prior to the installation of ceiling membranes.

h. **Fire Alarm**

Inspection cannot be scheduled if Project Acceptance for Fire Alarm has not been issued by DFM. Checklist is to be completed during contractor pre-testing of system. This checklist is to be forwarded to DFM inspector prior to scheduling inspection. DFM inspection to be per NFPA 72.

i. **Sprinkler and Standpipe**

Inspection cannot be scheduled if Project Acceptance for Sprinkler has not been issued by DFM. Required tests – hydrostatic or air tests as per NFPA 13, operational tests of waterflow devices, dry pipe, deluge, main drain, operating test of hydrant, pressure reducing valves, backflow prevention assemblies and visual inspection of sprinkler coverage. Standpipe inspected per NFPA 14.

j. **Emergency Lighting**

This inspection is to be done in conjunction with above ceiling and emergency power inspections.

k. **Back-up (Emergency) Power Sources**

Testing of storage batteries, unit equipment or generator. Testing is to be done when emergency circuits and fixtures are complete. The testing shall initiate normal power failure and then retransfer back to normal power at conclusion of testing time.

l. **Fire Pump**

Inspected per NFPA 20.

m. **Elevator**

Testing to be done when elevator installation is complete. (load testing and ADAAG verification)

n. **Roof inspections (including tear-off, insulation, membrane placement, flashing)**

Inspection to include: insulation placement, membrane (covering placement) and final (flashing, drainage, penetrations).

o. **Smoke Control Systems**

Witness special inspection and tests conducted to verify proper commissioning of the smoke control design in its final installed condition.

p. **Pressure testing of all piping**

Fuel gas piping testing per 2003 IFGC Section 406 and plumbing piping per 2003 IPC 312.

q. **Locking Systems**

This testing to be done in conjunction with fire alarm test.

r. **Final Inspections (including exit path and ADAAG verification)**

Shall be made when all active and passive life safety features and accessibility features are complete. Will include verification of exit path, ADAAG and that all other required tests have been completed.

**DFM Contacts for this project:**

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Building Construction Inspector (785) \_\_\_\_\_

**Fire Alarm / Sprinkler Shop Drawings contact:**

Diana Hutchison, Code Compliance Coordinator (785) 296-4728